APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 2 and 3 are canceled.

The claims are amended as follows:

1. (Amended two times) An ink cartridge for a printing apparatus providing ink to a print head through a tapered ink supply needle and removably attached to the print head, comprising:

an ink chamber for containing ink;

an ink supply port for supplying ink from said ink chamber to the print head of the printing apparatus, said ink supply port comprising an external opening;

a packing member provided in said ink supply port, forming an ink channel for allowing a flow of ink, said packing member sealing the ink supply needle of the printing apparatus by fitting therewith; [and]

a valve device contained in said ink supply port elastically abutting against said packing member, said valve device selectively opening and closing said ink channel in conjunction with the ink supply needle [;], wherein said valve device does not comprise a sphere; and

a sealing film sealing said external opening of said ink supply port until said ink supply needle penetrates into said ink supply port.

9. (Amended) An ink cartridge for a printing apparatus providing ink to a print head through an ink supply needle and removably attached to the print head, comprising:

an ink chamber for containing ink;

an ink supply port for supplying ink from said ink chamber to the print head of the printing apparatus, said ink supply port comprising an external opening;

a packing member provided in said ink supply port, forming an ink channel for allowing a flow of ink, said packing member sealing the ink supply needle of the printing apparatus by fitting therewith; and

a valve device contained in said ink supply port elastically abutting against said packing member, said valve device selectively opening and closing said ink channel in conjunction with the ink supply needle, said valve device comprising:

a valve body contacting with said packing member and urged by the ink supply needle of the printing apparatus to open said ink channel when the ink cartridge is mounted on the printing apparatus; and

a guide body for guiding said valve body to slide substantially vertically with respect to said packing member, and operably suppressing a horizontal deviation of said valve device.

10. (Amended two times) An ink cartridge as set forth in any one of claims 1, [2,] 4, or 5, wherein said valve device comprises:

a valve member selectively contacting with a surface of said packing member, said valve member being forced by the ink supply needle of the printing apparatus when the ink cartridge is mounted on the printing apparatus; and

an elastic member always urging said valve member toward said packing member.

21. (Amended) [An ink cartridge as set forth in claim 9,] An ink cartridge for a printing apparatus providing ink to a print head through an ink supply needle and removably attached to the print head, comprising:

an ink chamber for containing ink;

an ink supply port for supplying ink from said ink chamber to the print head of the printing apparatus, said ink supply port comprising an external opening;

a packing member provided in said ink supply port, forming an ink channel for allowing a flow of ink, said packing member sealing the ink supply needle of the printing apparatus by fitting therewith; and

a valve device contained in said ink supply port elastically abutting against said packing member, said valve device selectively opening and closing said ink channel in conjunction with the ink supply needle, said valve device comprising:

a valve body contacting with said packing member and urged by the ink supply needle of the printing apparatus to open said ink channel when the ink cartridge is mounted on the printing apparatus; and

a guide body for guiding said valve body to slide substantially vertically with respect to said packing member;

wherein said guide body comprises:

an axial portion being connected to said valve body; and

a guide block formed at an end of said axial portion opposite to said valve body, said guide block guiding said valve body to slide substantially vertically with respect to said packing member.

27. (Amended two times) An ink cartridge for a printing apparatus providing ink to a print head through an ink supply needle and removably attached to the print head, comprising:

an ink chamber for containing ink;

an ink supply port for supplying ink from said ink chamber to the print head of the printing apparatus, said ink supply port comprising an external opening;

a packing member provided in said ink supply port, forming an ink channel for allowing a flow of ink, said packing member sealing the ink supply needle of the printing apparatus by fitting therewith; and

a valve device contained in said ink supply port elastically abutting against said packing member, said valve device selectively opening and closing said ink channel in conjunction with the ink supply needle, said valve device comprising:

a valve body contacting with said packing member and urged by the ink supply needle of the printing apparatus to open said ink channel when the ink cartridge is mounted on the printing apparatus, and

a guide body for guiding said valve body to slide substantially vertically with respect to said packing member;

wherein said guide body comprises:

an axial portion being connected to said valve body, and

a guide block formed at an end of said axial portion opposite to said valve body, said guide block guiding said valve body to slide substantially vertically with respect to said packing member; and

wherein said guide body [is made of an elastic material and] formed with a groove extending from said guide block through said axial portion.

29. (Amended two times) An ink cartridge for a printing apparatus providing ink to a print head through an ink supply needle and removably attached to the print head, comprising:

an ink chamber for containing ink;

an ink supply port for supplying ink from said ink chamber to the print head of the printing apparatus, said ink supply port comprising an external opening;

a packing member provided in said ink supply port, forming an ink channel for allowing a flow of ink, said packing member sealing the ink supply needle of the printing apparatus by fitting therewith; and

a valve device contained in said ink supply port elastically abutting against said packing member, said valve device selectively opening and closing said ink channel in conjunction with the ink supply needle, said valve device comprising:

a valve body contacting with said packing member and urged by the ink supply needle of the printing apparatus to open said ink channel when the ink cartridge is mounted on the printing apparatus, and

a guide body for guiding said valve body to slide substantially vertically with respect to said packing member;

wherein said valve body of said valve device comprises a surface [,] facing said packing member, and [formed with] a member protruding from said surface and contacting [portion to contact] with a tip end of the ink supply needle.

37. (Amended two times) An ink cartridge as set forth in any one of claims 1, [2,] 4, or 5, wherein said valve device comprises:

a valve body contacting with said packing member and urged by the ink supply needle of the printing apparatus to open said ink channel when the ink cartridge is mounted on the printing apparatus; and

an elastic support portion for supporting said valve body.

38. (Amended two times) An ink cartridge as set forth in any one of claims 1, [2,] 4, 5, 8, or 9, further comprising a packing retainer for retaining said packing member at said external opening of said ink supply port.

46. (Amended two times) A printing apparatus for ejecting ink on a printing medium, comprising:

a print head;

a tapered ink supply needle; and

an ink cartridge capable of communicating with said print head through said tapered ink supply needle and removably attached to said print head,

said ink cartridge comprising:

an ink chamber for containing ink;

an ink supply port for supplying ink from said ink chamber to the print head of the printing apparatus, said ink supply port comprising and external opening;

a packing member provided in said ink supply port, forming an ink channel for allowing a flow of ink, said packing member sealing the ink supply needle of the printing apparatus by fitting therewith; and

a non-spherical valve device contained in said ink supply port, closing said ink channel by elastically abutting said protruding rim of [against] said packing member, said valve device selectively opening and closing said ink channel in conjunction with the ink supply needle;

wherein said abutting of said valve device against only an upper part of said protruding rim performs said closing of said ink channel.

50. (Amended) A printing apparatus as set forth in any one of claims 1, [2,] 4, 5, 8, and 9, wherein said ink supply port includes a concave portion, and wherein said packing member includes a protruding portion extending toward said supply port and fitting with the concave portion of said ink supply port.

Claims 51-53 are added as new claims.